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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,130	07/17/2006	Masaaki Takegami	4633-0175PUS1	1803
2292 7590 02/06/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
RUBY, TRAVIS C				
ART UNIT		PAPER NUMBER		
4184				
NOTIFICATION DATE		DELIVERY MODE		
02/06/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/586,130

Applicant(s)

TAKEGAMI ET AL.

Examiner

TRAVIS RUBY

Art Unit

4184

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 7/17/2006

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha (US 2005/0097906A1) in view of Toshiro (JP 10-201083 A, as cited by applicant).

Re Claim 1. Ha teaches: A refrigeration system (refs 104a to 104h and 102, Figure 1) for performing a refrigeration operation in which electric systems of refrigeration system components are supplied with electric power from a power supply through a breaker (ref 112 and 114a to 114h, Figure 1) (Abstract, Paragraphs 13, 24, and 25).

Ha fails to teach a sequential startup means for, upon operation restart after the breaker trips owing to failure in the electric systems, sequentially starting up target refrigeration system components previously selected from among the refrigeration system components; and failure processing means for, if the breaker trips again owing to failure in the electric systems during the sequential startup of the target refrigeration system components through the sequential startup

means, excluding the refrigeration system component supplied with electric power just before the occurrence of the failure from the target refrigeration system components to be started up by the sequential startup means.

Toshiro teaches an invention in which when restarting after a breaker has been activated due to failure, power is sequentially supplied to each division, and when the breaker is again activated at the time of supply, power is supplied excluding the division to which power was supplied immediately prior to the re-breakage, so that power is restored to only normal divisions.
(Abstract)

In view of Toshiro's teachings, it would have been obvious to one of ordinary skill at the time of invention to include with Ha's multi-unit refrigeration system a failure processing means because it allows for the system to continue to operate even though one of the components has malfunctioned. This is advantageous because it allows for continual operation remotely and automatically without a need for a technician to fix the system immediately.

Re Claim 2. Ha fails to teach transition means for, when the target refrigeration system components to be started up by the sequential startup means are all normally started up, making a transition to a normal operation while holding in a halted state the refrigeration system component excluded from the target refrigeration system components by the failure processing means.

Toshiro teaches an invention in which when restarting after a breaker has been activated due to failure, power is sequentially supplied to each division, and when the breaker is again activated at the time of supply, power is supplied excluding the division to which power was

supplied immediately prior to the re-breakage, so that power is restored to only normal divisions.
(Abstract)

In view of Toshiro's teachings, it would have been obvious to one of ordinary skill at the time of invention to include with Ha's multi-unit refrigeration system a transition means because it allows for the system to continue to operate even though one of the components has malfunctioned.

Re Claim 3. Ha teaches the refrigeration system of claim 1, wherein the target refrigeration system components to be sequentially started up by the sequential startup means are a plurality of compressors (Paragraph 24. It is well known in the art that multiple compressors can be used in multi-unit refrigeration units. It is also inherent and necessary for a compressor to be in a multi-unit refrigeration unit).

Re Claim 4. The refrigeration system of claim 1, wherein the target refrigeration system components to be sequentially started up by the sequential startup means are a plurality of compressors and a plurality of fans (Paragraph 24. It is well known in the art that multiple compressors can be used in multi-unit refrigeration units. It is also inherent and necessary for a compressor to be in a multi-unit refrigeration unit. It is inherent and necessary that an indoor unit in a refrigeration cycle would have a fan).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gucwa Jr et al (US 4022598) teaches a protection system for electric motors.

Hirooka et al (US 5782098) teaches a freezer control unit. Fillo (US2157329) teaches a control system for a refrigeration cycle that uses sequential startup after a power failure. Hanson et al. (US5140825) teaches a method of operating a transport refrigeration unit which checks each refrigeration component individually by energizing and de-energizing and comparing the current draw to check for errors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRAVIS RUBY whose telephone number is (571)270-5760. The examiner can normally be reached on Monday-Thursday 7:30-5:00, Friday 7:30-4:00 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jared Fureman can be reached on 571-272-2391. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Travis Ruby/
Examiner, Art Unit 4184

/Isam Alsomiri/
Primary Examiner, Art Unit 3662

1/29/2009

